

Application Serial No.: 10/665,961

Attorney Docket No.: UTL 00173

**REMARKS/ARGUMENTS**

The present paper is in response to the Final Office Action dated June 7, 2007. Claims 1-4, 6-8, 10-25 are still pending of which claims 1, 6, 13, 18, and 23 are independent claims. The Applicant amends claim 3. The amended claim introduces no new matter and is fully supported by the specification. The Applicant respectfully submits that the pending claims 1-4, 6-8, 10-25 are in condition for allowance in view of the amendments and following supporting remarks.

**Claim Rejections Under § 103:**

Paragraph 3 of the Office Action rejects claims 1 and 2 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Irvin (U.S. 6,021,317) in view of McNicol (U.S. Pat. 5,940,454). With respect to claims 1 and 2, Applicant respectfully traverses the rejection because Irvin in view of McNicol fails to make out a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

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In order to allege a claim is obvious when references are combined under 35 U.S.C. §103(a) the combination must teach each and every limitation of the claim. In this case, the rejection must fail because Irvin and McNicol alone or in combination, fail to teach each and every element of the claims as amended.

The Action admits that Irvin fails to anticipate the limitation requiring "a processor configured to determine an error rate associated with the signal and generate one or more control signals when the error rate exceeds a threshold for a set period of time." However, the Action alleges that McNicol teaches this limitation, citing col. 3 lines 47-62, and col. 4 lines 63 through col. 5 line 3. Applicant respectfully disagrees.

McNicol teaches a receiver with a plurality of antennas, which receives a signal on a given antenna, equalizes the signal and attempts to demodulate the signal (col. 3 lines 47-54). McNicol's switch controller responds to a quality metric from the demodulator (see Fig. 4 & 5), and selects a new antenna if a quality metric does not exceed a predetermined threshold before a predetermined forward guard time expires (col. 4 lines 55-62 and col. 4 line 63 – col. 5 line 3). McNicol states that if the quality metric does not exceed the threshold before a predetermined time, then a different antenna is selected (See col. 3, lines 57-60 and col.4, lines 66-67). McNicol's control signal is merely determined by the value of a quality metric, and whether that quality metric ever exceeds a threshold (or fails to exceed a threshold) within a given time frame. Therefore, McNicol triggers if the quality metric exceeds the threshold, regardless of the amount of duration the quality metric exceeds the threshold.

Compare Applicant's claim 1 as amended, in which the processor generates one or more control signals when the error rate exceeds a threshold for a set period of

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time. Thus, unlike McNicol, Applicant's control will not respond to error rates exceeding the error rate threshold, but which are a shorter duration than "a set time". Thus, Irvin in light of McNicol fails to teach each limitation of claim 1. Stated another way, if the quality metric of McNicol spiked above the threshold, then according to the disclosure of McNicol, then the system would make the decision to not change antennae; however, in the system, e.g., claimed in claim 1 of the present application, if the error rate spiked above a threshold, but then dropped back down, then this would not result in a reaction. Rather, the error rate would need to rise above the threshold and stay there for a set period of time.

Claim 2 depends from claim 1 and is therefore also allowable for at least the same reasons as discussed with respect to claim 1. Additionally, Applicant traverse this rejection, because the Action argues that McNicol further teaches the switching element comprising a voltage controlled switch, citing col. 8, lines 57-62 as support. Applicant respectfully disagrees. McNicol, col. 8 lines 57-62, does not disclose the term "voltage" nor "voltage controlled switch", and thus does not teach the limitation of claim 2. Applicant therefore, respectfully requests withdrawal of the rejection of claim 2.

Paragraph 4 of the Office Action rejects claims 3-4, 6-8, 10-17, and 23-25 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Irvin in view of Bruckert (U.S. 6,018,651) and in further view of McNicol. ~~Claims 13-17 have been cancelled.~~  
~~Applicant therefore, respectfully requests withdrawal of the rejection of claims 13-17.~~  
With respect to claims 3-4, 6-8, 10-~~12~~17, and 23-25, Applicant respectfully traverses the rejection because Irvin in view of Bruckert and in further view of McNicol fails to make out a *prima facie* case of obviousness.

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Claims 3 and 4 depend from claim 1 and are therefore also allowable for at least the same reasons as discussed with respect to claim 1. Additionally, Applicant respectfully traverses the rejection for claim 3. In addition to the reasons described above, Irvin in light of Bruckert, in further light of McNicol, fails to teach a system as described in claim 3, as amended, wherein "the processor is further configured to control the first and second amplifiers such that the signal from both antennas is initially provided to the processor; lower the gain of the first amplifier until no signal is received from the first antenna; and raise the gain of the second amplifier as the gain of the first amplifier is being reduced and while the switching element is switching from the first antenna to the second." Applicant therefore, respectfully requests withdrawal of the rejection of claim 3.

Additionally, with respect to claim 4, the Action alleges that Bruckert further teaches a first amplifier located between the first antenna and the switching element and a second amplifier located between the second antenna and the switching element. However, Bruckert in fact discloses a much different arrangement. Bruckert discloses a first amplifier which shares a common node with the second amplifier. Thus, the output of the first amplifier is actually coupled to the output of the second amplifier. Therefore, the first amplifier is coupled to the antenna (via a band pass filter), the second amplifier, and the switching element. Applicant therefore, respectfully requests withdrawal of the rejection of claim 4.

With respect to claim 6, the Action admits that Irvin and Bruckert both alone or in combination fail to disclose determining an error rate of the signal; comparing the error rate of the signal to a threshold; determining a time duration that the error rate exceeds

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a threshold; and generating a control signal when the error rate exceeds a threshold for a set period of time. For the same reasons as described above in regards to claim 1, Applicant respectfully disagrees that McNicol teaches the limitation of claim 6 as amended. Specifically, McNicol does not teach measuring an error rate **for a set period of time**. Applicant therefore, respectfully requests withdrawal of the rejection of claim 6.

Claim 7 depends from claim 6 and is therefore also allowable for at least the same reasons as discussed with respect to claim 6. Additionally, Applicant respectfully traverses the rejection for claim 7. The Action rejected claim 7 based on Bruckert (col. 20, lines 9-28). However, Bruckert teaches only periodic sampling (i.e. sampling every 10<sup>th</sup> symbol), not a time averaged error rate. Applicant therefore, respectfully requests withdrawal of the rejection of claim 7.

Claims 8 and 10-12 depend from claim 6 and are therefore also allowable for at least the same reasons as discussed with respect to claim 6. Applicant therefore, respectfully requests withdrawal of the rejection of claims 8 and 10-12.

Additionally, Applicant respectfully traverses the rejection for claim 10. The Action states that Bruckert further teaches "slowly decreasing the amplification...", and cites col. 15, lines 6-19 as support. Applicant respectfully disagrees that Bruckert (col. 15, lines 6-19) teaches "slowly" decreasing the amplification. Moreover, the section cited in the Action (See Bruckert, column 15, lines 6-19) as teaching or suggesting claim 10, in fact teaches the opposite. In particular, Bruckert discloses "SIMULTANEOUS switching between a first and a second selected antenna states" NOT switching by SLOWLY decreasing amplification of a first amplifier coupled to a first antenna while

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SLOWLY increasing amplification of a second amplifier coupled to a second antenna as taught in claim 10. For these additional reasons, Applicant respectfully requests withdrawal of the rejection of claim 10.

Claim 11 further depends from claim 10, and is therefore also allowable for at least the same reasons as discussed with respect to claim 10. Additionally, Applicant respectfully traverses the rejection for claim 11. Applicant respectfully disagrees that Bruckert teaches a time period **of greater than or equal to two milliseconds**, as cited by the Action, with reference to Bruckert col. 19, lines 28-55. Instead Bruckert merely recites that the downconverter is approximately matched to a 0.81 microsecond chip (see Bruckert col. 19, lines 43-44). For these additional reasons, Applicant therefore, respectfully requests withdrawal of the rejections of claim 11.

In contrast with claim 13, Bruckert fails to teach or suggest "determining a time duration that the error rate exceeds the threshold value... and generating one or more control signals to control the amplifying if the comparing reveals that the error rate is greater than the threshold value for a set period of time." Additionally, for at least the same reasons as discussed with regard to claims 1 and 6, McNicol fails to supply this limitation. Therefore, Applicant respectfully requests that the rejection be withdrawn for claim 13.

Claims 14-17 depend directly or indirectly from claim 13. Accordingly, Applicant respectfully requests that this rejection be withdrawn for claims 14-17 for at least the same reasons discussed with respect to claim 13.

In contrast with claim 23 as amended, Bruckert in view of Irvin, in further view of McNicol fails to teach or suggest "means for processing configured to analyze the first

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signal and the second signal and, responsive to the analyzing, generate a control signal when an error rate associated with the first signal or the second signal exceeds a threshold value for a set period of time". The Action admits that Irvin and Bruckert, in combination, fail to teach a generated response when an error rate associated with the first or second signal exceeds a threshold value for a set period of time (See June 7 Office Action, page 10). The Action alleges that McNicol teaches this limitation. However, for the same reasons discussed with respect to claims 1, 6 and 13 Applicant respectfully disagrees. Therefore, since McNicol fails to cure the deficiencies of Bruckert in view of Irvin, Applicant respectfully requests that the rejection be withdrawn for claim 23.

Claims 24 and 25 depend directly or indirectly from independent claim 23. Accordingly, the Applicant respectfully requests that this rejection be withdrawn for claims 24 and 25 for at least the same reasons discussed with respect to claim 23.

Paragraph 5 of the Action rejects claims 18, and 20-22 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Irvin in view of Bruckert. With respect to claims 18, and 20-22, Applicant respectfully traverses the rejection because Irvin in view of Bruckert fails to make out a *prima facie* case of obviousness.

In contrast with claim 18, Bruckert fails to teach or suggest "a processor configured to receive a signal from the node and present control signals to the first amplifier and the second amplifier, wherein said control signals selectively and slowly enables or disables the first amplifier and the second amplifier" (see Applicant's claim 18). Specifically, Bruckert et al. teaches that once a control signal is received to switch from a first input (i.e., a first antenna) to a second input (i.e. a second antenna), the

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switch is "near simultaneous" (See Bruckert, col. 15, lines 18-19) and is not a **SLOW** switch as recited in claim 18. For at least the above reasons, the Applicant respectfully requests that the rejection be withdrawn for claim 18.

Claims 19-22 depend directly or indirectly from independent claim 18.

Accordingly, the Applicant respectfully requests that this rejection be withdrawn for claims 19-22 for at least the same reasons discussed with respect to claim 18.

Moreover, the Action does not provide any analysis or support for the rejection to claim 19 contained therein. Accordingly, in the event that Applicant's response does not overcome the rejection, Applicant requests that a detailed, non-final Action be issued that includes support for each and every rejection contained therein.

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**CONCLUSION**

Based on the above amendments and remarks, Applicant believes that the claims are in condition for allowance and such is respectfully requested. Applicant believes that no additional fees are necessitated by this response. The Commissioner is hereby authorized to charge any additional fees required by this response to our Deposit Account No. 50-3001 of Kyocera Wireless Corp.

Respectfully Submitted;

Dated: August 3, 2007/George W. Luckhardt/George W. Luckhardt  
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